

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention **USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS**

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☒ The attached application, or
- ☐ Application No. _____, filed on _____,
- ☐ as amended on _____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)

Inventor one: Suresh Subramanian

Signature: Suresh Subramanian Citizen of: India

Inventor two: James Dale Steibel

Signature: James Dale Steibel Citizen of: United States of America

Inventor three: Douglas Melton Carper

Signature: Douglas Melton Carper Citizen of: United States of America

Inventor four: Brian Keith Flandermeyer

Signature: _____ Citizen of: United States of America

☐ Additional inventors are being named on _____ additional form(s) attached hereto.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☒ The attached application, or
- ☐ Application No. _____, filed on _____,
- ☐ as amended on _____ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/ we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR(S)

Inventor one: Suresh Subramanian

Signature: _____ Citizen of: India

Inventor two: James Dale Steibel

Signature: _____ Citizen of: United States of America

Inventor three: Douglas Melton Carper

Signature: _____ Citizen of: United States of America

Inventor four: Brian Keith Flandermeyer

Signature: Brian Keith Flandermeyer Citizen of: United States of America

☐ Additional inventors are being named on _____ additional form(s) attached hereto.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: General Electric Company)
Serial No.:) Attn: LICENSING AND REVIEW
Filed: February 23, 2004)
Title: USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF
SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS

DECLARATION UNDER SECTION 305(c) OF THE
NATIONAL AERONAUTICS AND SPACE ACT OF 1958

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SIR:

We, Suresh SUBRAMANIAN, James Dale STEIBEL, Douglas Melton CARPER,
and Brian Keith FLANDERMEYER, hereby declare:

That we are the inventors of the invention described and claimed in the above-
referenced U.S. Patent Application;

That the invention was made while we were employed by the General Electric
Company, the assignee of the subject invention, using only the resources of the
General Electric Company, including, for example, its funds, facilities, materials,
information, and services;

That the invention set forth in the above-referenced U.S. Patent Application was
not made (conceived or first actually reduced to practice) under, nor is there any known
relationship of the making of the invention to the performance of, any work under any
contract of the National Aeronautics and Space Administration;

That we signed this declaration on the date we signed the form papers
accompanying the filing of the above-referenced U.S. Patent Application with the
understanding that the attorney of record would later insert the appropriate serial
number and filing date hereinabove before submitting this Declaration to the U.S. Patent
and Trademark Office;

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therein.

1/5/04
(Date)

Suresh Subramanian
Suresh Subramanian

1/5/04
(Date)

James D. Steibel
James Dale Steibel

1/5/04
(Date)

Douglas Melton Carper
Douglas Melton Carper

(Date)

Brian Keith Flandermeyer
Brian Keith Flandermeyer

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: General Electric Company)
Serial No.:) Attn: LICENSING AND REVIEW
Filed: February 23, 2004)
Title: USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF
SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS

DECLARATION UNDER SECTION 305(c) OF THE
NATIONAL AERONAUTICS AND SPACE ACT OF 1958

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SIR:

We, Suresh SUBRAMANIAN, James Dale STEIBEL, Douglas Melton CARPER, and Brian Keith FLANDERMEYER, hereby declare:

That we are the inventors of the invention described and claimed in the above-referenced U.S. Patent Application;

That the invention was made while we were employed by the General Electric Company, the assignee of the subject invention, using only the resources of the General Electric Company, including, for example, its funds, facilities, materials, information, and services;

That the invention set forth in the above-referenced U.S. Patent Application was not made (conceived or first actually reduced to practice) under, nor is there any known relationship of the making of the invention to the performance of, any work under any contract of the National Aeronautics and Space Administration;

That we signed this declaration on the date we signed the form papers accompanying the filing of the above-referenced U.S. Patent Application with the understanding that the attorney of record would later insert the appropriate serial number and filing date hereinabove before submitting this Declaration to the U.S. Patent and Trademark Office;

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therein.

(Date)

Suresh Subramanian

(Date)

James Dale Steibel

(Date)

Douglas Melton Carper

2/14/04
(Date)



Brian Keith Flandermeyer

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Application Number	
Filing Date	February 23, 2004
First Named Inventor	SUBRAMANIAN et al.
Title	USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS
Art Unit	n/a
Examiner Name	n/a
Attorney Docket Number	121499 (07783-0163)

I hereby appoint:

Practitioners at Customer
Number:

31450

OR



Practitioner(s) named below::

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:



The above-mentioned Customer Number:

OR

The address associated with Customer
Number:

OR

<input type="checkbox"/>	Firm or Individual Name					
	Address					
	Address					
	City		State		Zip	
	Country					
	Telephone		Fax			

I am the:



Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name	Suresh Subramanian				
Signature	<i>Suresh Subramanian</i>				
Date	01/05/04	Telephone	513-243-6902		

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.

Submit multiple forms if more than one signature is required, see below*.



*Total of 4 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Application Number	
Filing Date	February 23, 2004
First Named Inventor	SUBRAMANIAN et al.
Title	USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS
Art Unit	n/a
Examiner Name	n/a
Attorney Docket Number	121499 (07783-0163)

I hereby appoint:

☒ Practitioners at Customer
Number:

31450

OR

☐ Practitioner(s) named below::

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number:

OR

☐ The address associated with Customer
Number:

OR

<input type="checkbox"/>	Firm or Individual Name				
	Address				
	Address				
	City	State	Zip		
	Country				
	Telephone	Fax			

I am the:

☒ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name	James Dale Steibel				
Signature	<i>James Dale Steibel</i>				
Date	01/05/04		Telephone	513-786-1991	

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.

Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 4 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Application Number	
Filing Date	February 23, 2004
First Named Inventor	SUBRAMANIAN et al.
Title	USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS
Art Unit	n/a
Examiner Name	n/a
Attorney Docket Number	121499 (07783-0163)

I hereby appoint:

☒ Practitioners at Customer
Number:

31450

OR

☐ Practitioner(s) named below::

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number:

OR

☐ The address associated with Customer
Number:

OR

☐ Firm or
Individual Name

Address

Address

City

State

Zip

Country

Telephone

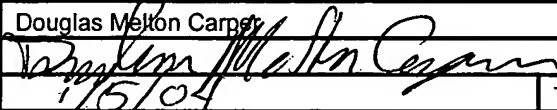
Fax

I am the:

☒ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name	Douglas Melton Carpenter		
Signature			
Date	1/5/04	Telephone	513-786-4594

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 4 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY and CORRESPONDENCE ADDRESS INDICATION FORM

Application Number	
Filing Date	February 23, 2004
First Named Inventor	SUBRAMANIAN et al.
Title	USE OF BIASED FABRIC TO IMPROVE PROPERTIES OF SiC/SiC CERAMIC COMPOSITES FOR TURBINE ENGINE COMPONENTS
Art Unit	n/a
Examiner Name	n/a
Attorney Docket Number	121499 (07783-0163)

I hereby appoint:

☒ Practitioners at Customer
Number:

31450

OR

☐ Practitioner(s) named below::

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number:

OR

☐ The address associated with Customer
Number:

OR

☐ Firm or
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I am the:

☒ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name Brian Keith Flandermeyer

Signature

Date

Telephone

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.

Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 4 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.